FIG.1

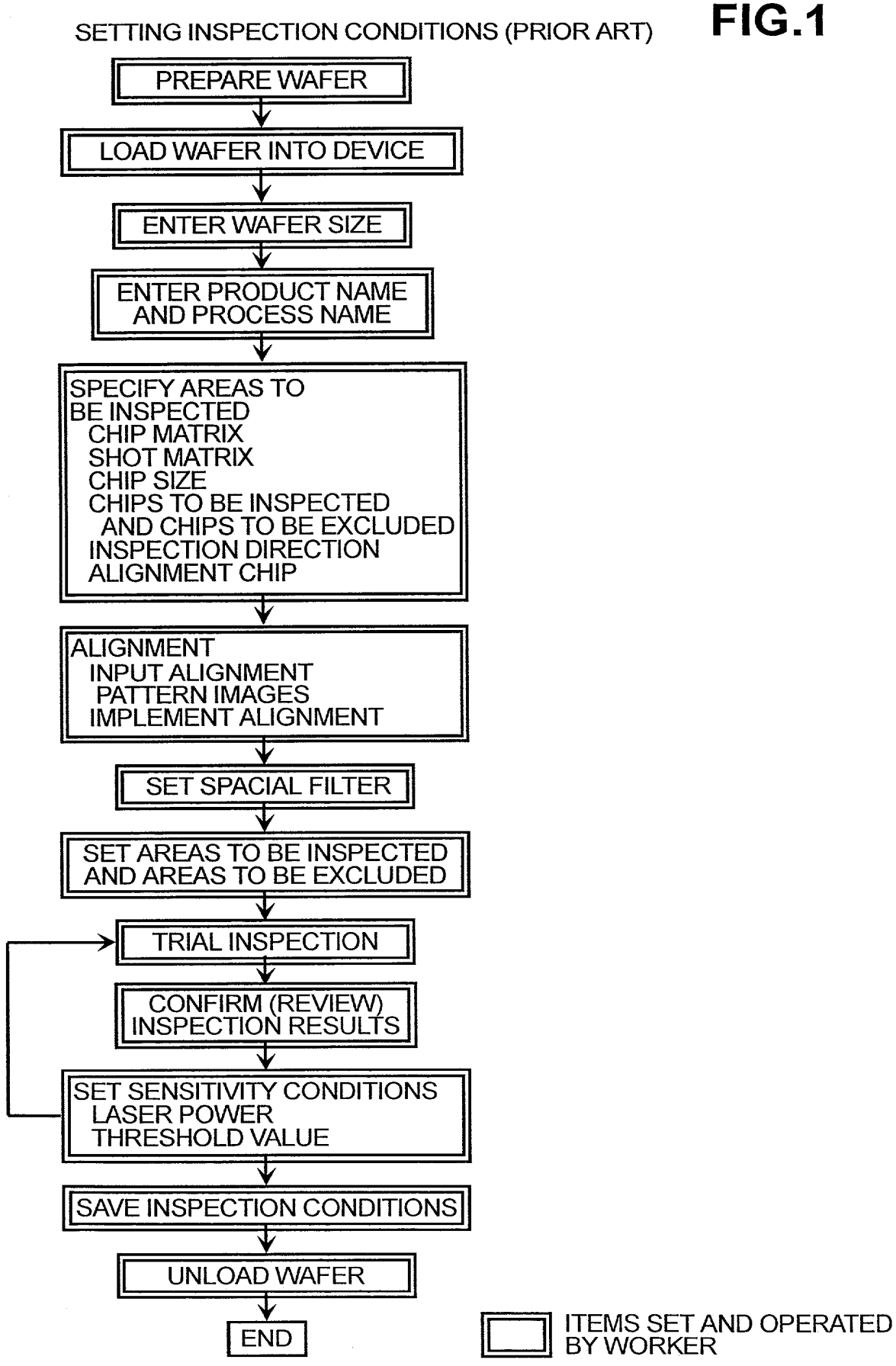

SETTING INSPECTION CONDITIONS (PRIOR ART)
PREPARE WAFER
LOAD WAFER INTO DEVICE
ENTER WAFER SIZE
ENTER PRODUCT NAME AND PROCESS NAME
SPECIFY AREAS TO BE INSPECTED
CHIP MATRIX
SHOT MATRIX
CHIP SIZE
CHIPS TO BE INSPECTED AND CHIPS TO BE EXCLUDED
INSPECTION DIRECTION
ALIGNMENT CHIP
ALIGNMENT
INPUT ALIGNMENT PATTERN IMAGES
IMPLEMENT ALIGNMENT
SET SPACIAL FILTER
SET AREAS TO BE INSPECTED AND AREAS TO BE EXCLUDED
TRIAL INSPECTION
CONFIRM (REVIEW) INSPECTION RESULTS
SET SENSITIVITY CONDITIONS
LASER POWER
THRESHOLD VALUE
SAVE INSPECTION CONDITIONS
UNLOAD WAFER
END
ITEMS SET AND OPERATED BY WORKER

FIG.2

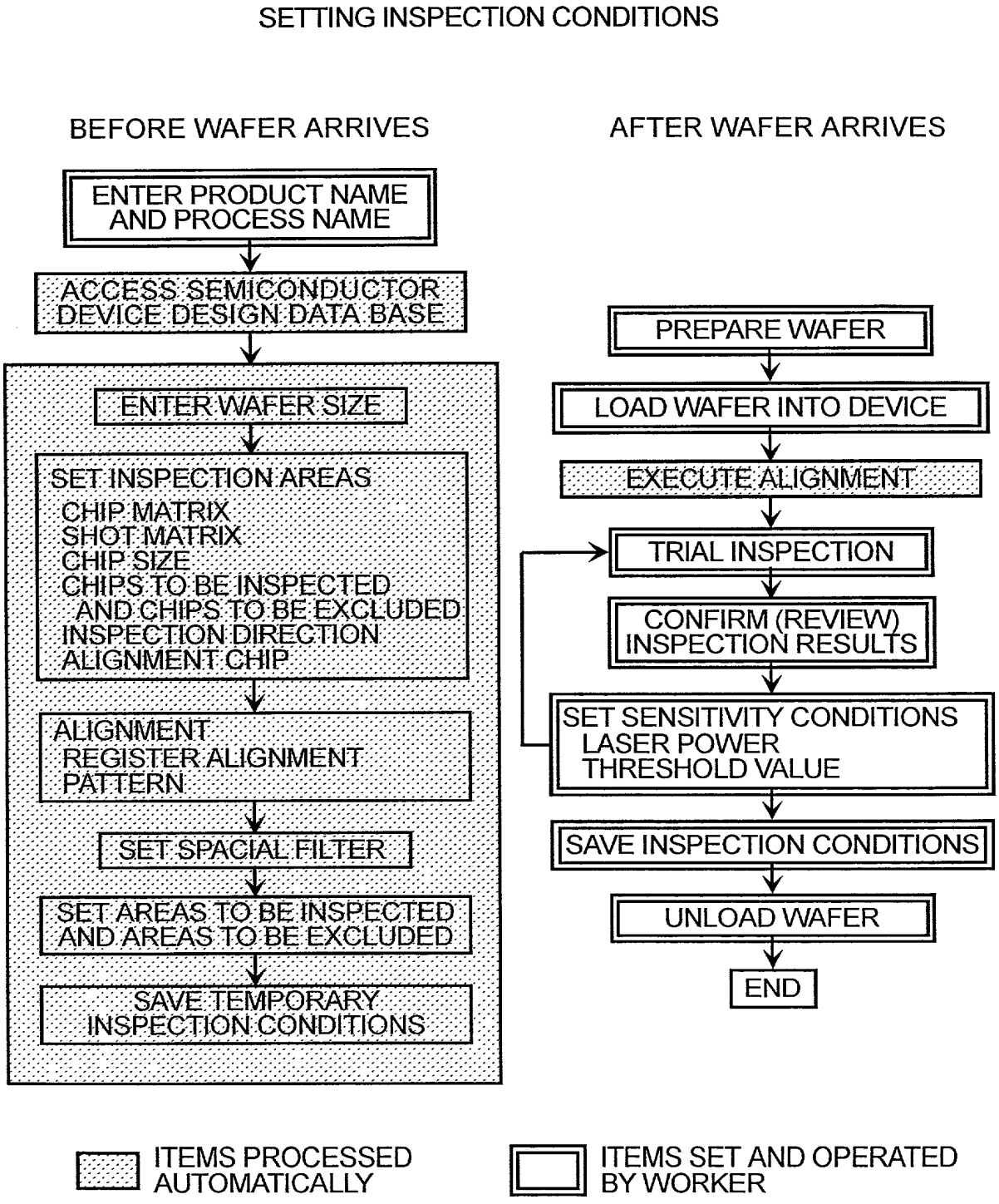

SETTING INSPECTION CONDITIONS
BEFORE WAFER ARRIVES
AFTER WAFER ARRIVES
ENTER PRODUCT NAME AND PROCESS NAME
ACCESS SEMICONDUCTOR DEVICE DESIGN DATA BASE
ENTER WAFER SIZE
SET INSPECTION AREAS
CHIP MATRIX
SHOT MATRIX
CHIP SIZE
CHIPS TO BE INSPECTED AND CHIPS TO BE EXCLUDED
INSPECTION DIRECTION
ALIGNMENT CHIP
ALIGNMENT
REGISTER ALIGNMENT PATTERN
SET SPACIAL FILTER
SET AREAS TO BE INSPECTED AND AREAS TO BE EXCLUDED
SAVE TEMPORARY INSPECTION CONDITIONS
PREPARE WAFER
LOAD WAFER INTO DEVICE
EXECUTE ALIGNMENT
TRIAL INSPECTION
CONFIRM (REVIEW) INSPECTION RESULTS
SET SENSITIVITY CONDITIONS
LASER POWER
THRESHOLD VALUE
SAVE INSPECTION CONDITIONS
UNLOAD WAFER
END
ITEMS PROCESSED AUTOMATICALLY
ITEMS SET AND OPERATED BY WORKER

FIG.3

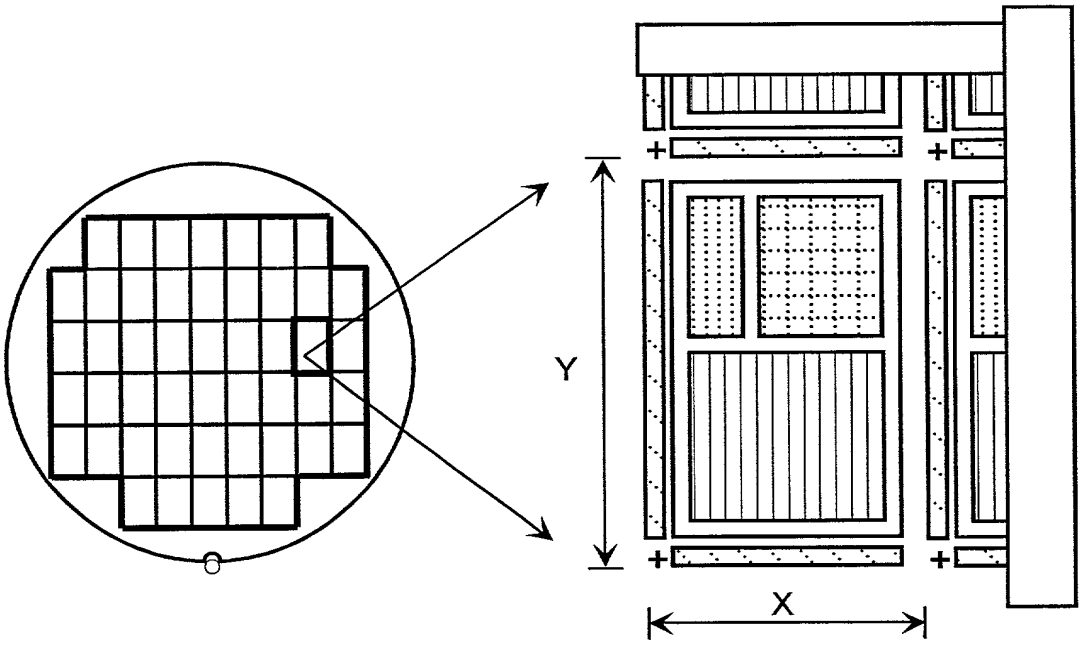
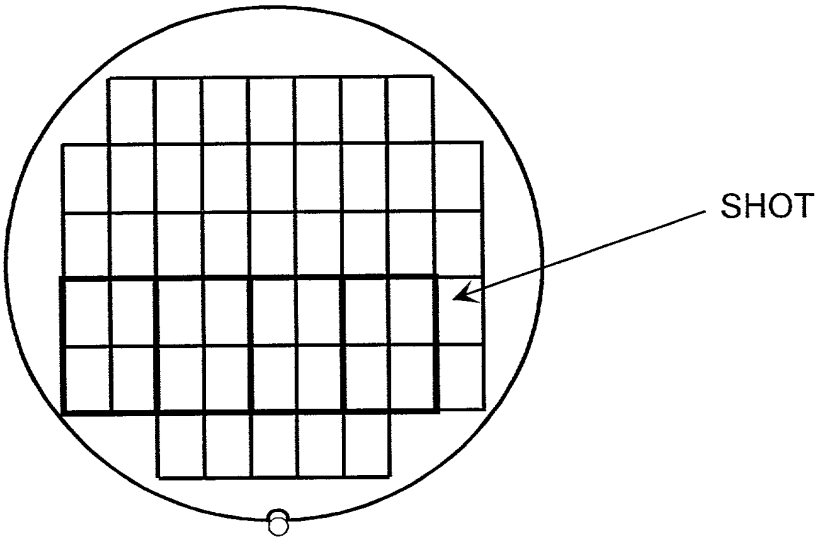


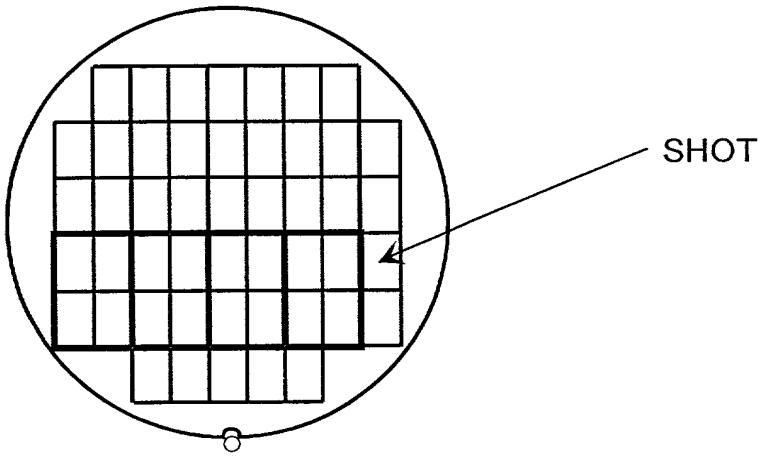
FIG.4



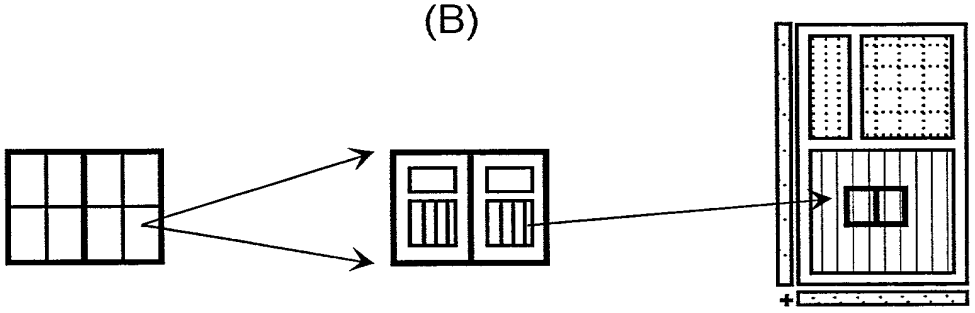
SETTING SHOT MATRIX

FIG.5

(A)



(B)



SHOT COMPARISON

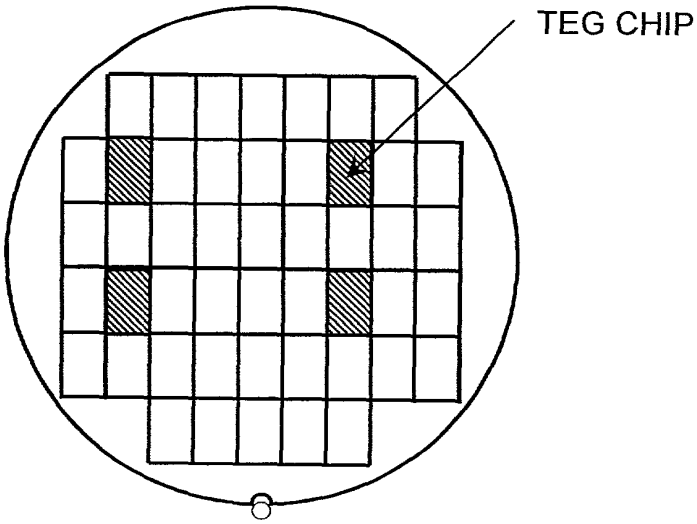
CHIP COMPARISON

CELL COMPARISON

SET THE COMPARISON METHOD TO SUIT THE REPETITIVE UNIT

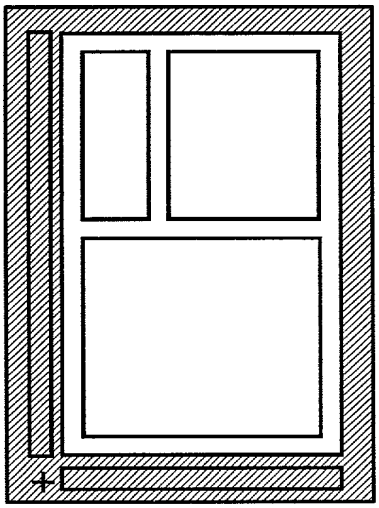
SETTING THE INSPECTION SEQUENCE

FIG.6



SETTING CHIPS TO BE EXCLUDED
FROM INSPECTION

FIG.7

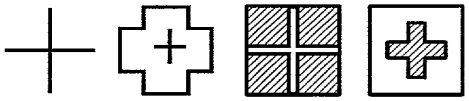


AREAS TO BE INSPECTED

AREAS EXCLUDED FROM INSPECTION (SCRIBE AREA)

SETTING AREAS TO BE INSPECTED AND AREAS TO BE EXCLUDED

FIG.8



SELECT PATTERNS AND MATERIAL THAT WILL MAKE IMAGES EASILY RECOGNISABLE DURING ALIGNMENT

SETTING THE ALIGNMENT PATTERN

FIG.9

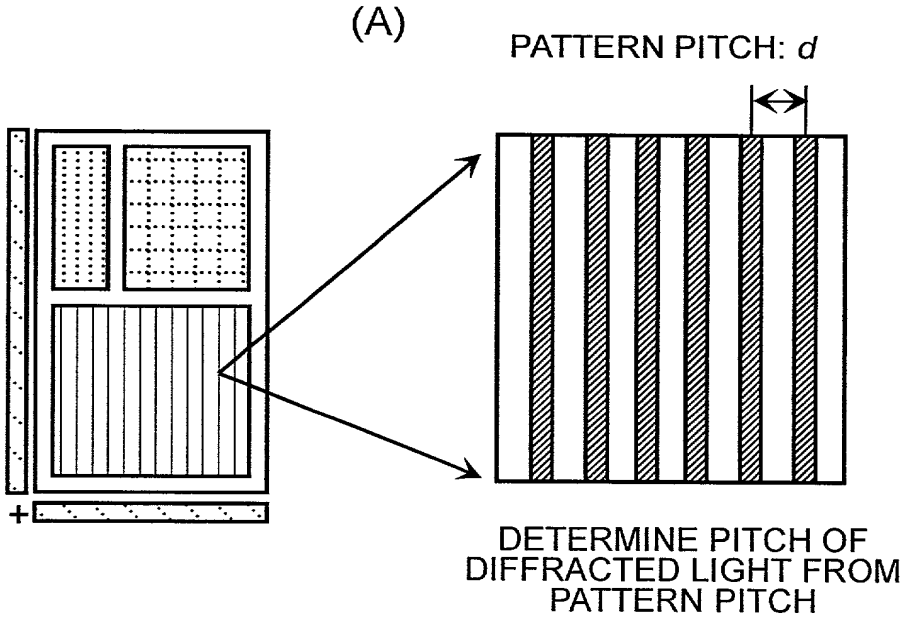
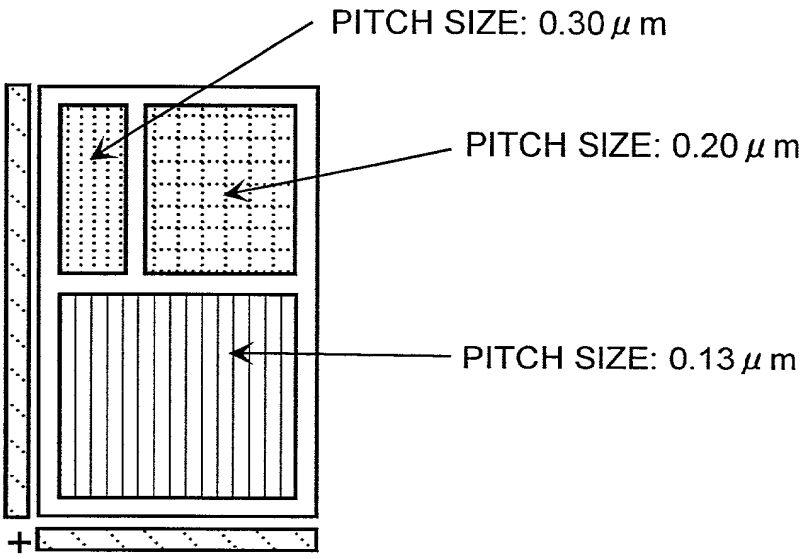
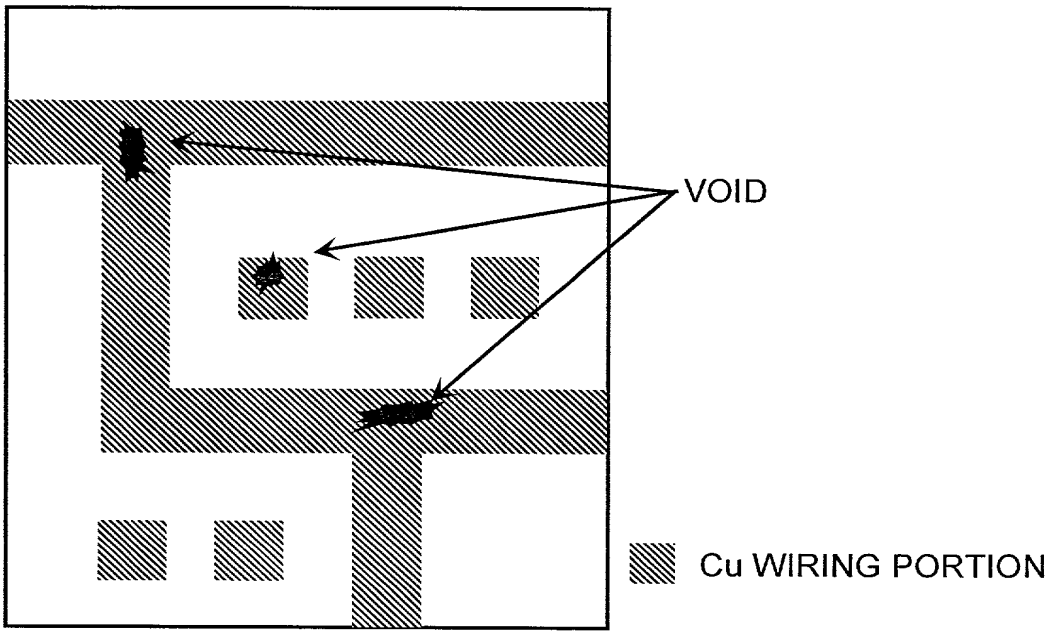

(A)
PATTERN PITCH: d
DETERMINE PITCH OF DIFFRACTED LIGHT FROM PATTERN PITCH
(B)
A
A'
(C)
SIGNAL VALUE
PATTERN SIGNAL
A
A'
BEFORE SPACIAL FILTER IS SET
(D)
SIGNAL VALUE
DEFECT SIGNAL
A
A'
AFTER SPACIAL FILTER IS SET

FIG.10



FATALITY JUDGEMENT
(BY PRODUCT, PROCESS, AND AREA)

FIG.11



AUTOMATIC DEFECT CLASSIFICATION TECHNOLOGY

FIG.12

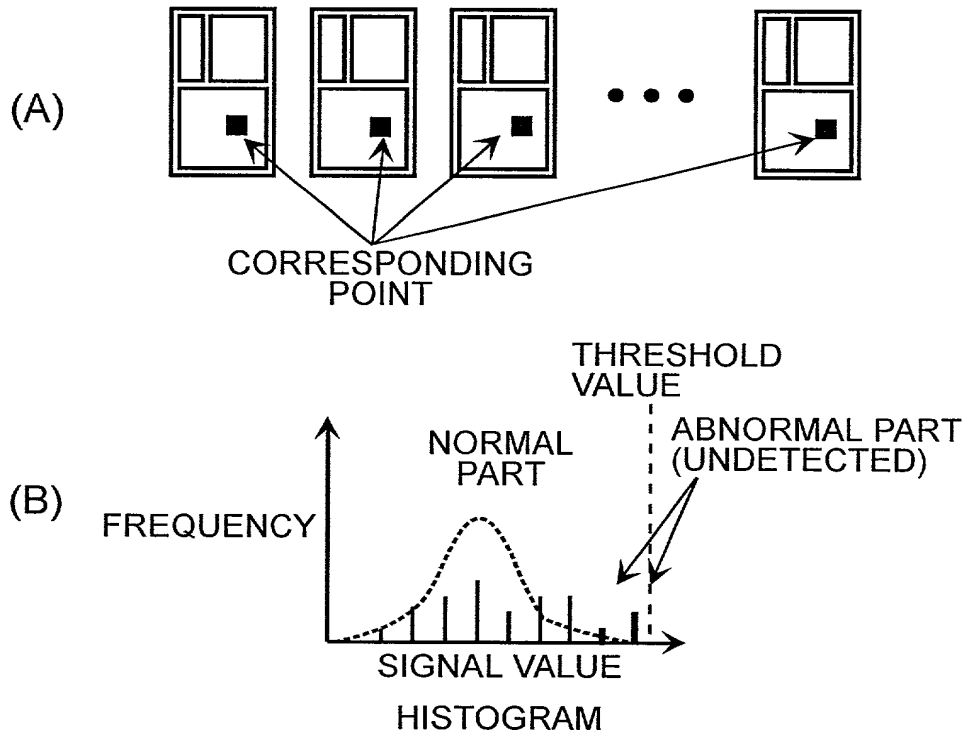

(A)
CORRESPONDING POINT
(B)
FREQUENCY
THRESHOLD VALUE
NORMAL PART
ABNORMAL PART (UNDETECTED)
SIGNAL VALUE
HISTOGRAM

FIG.13

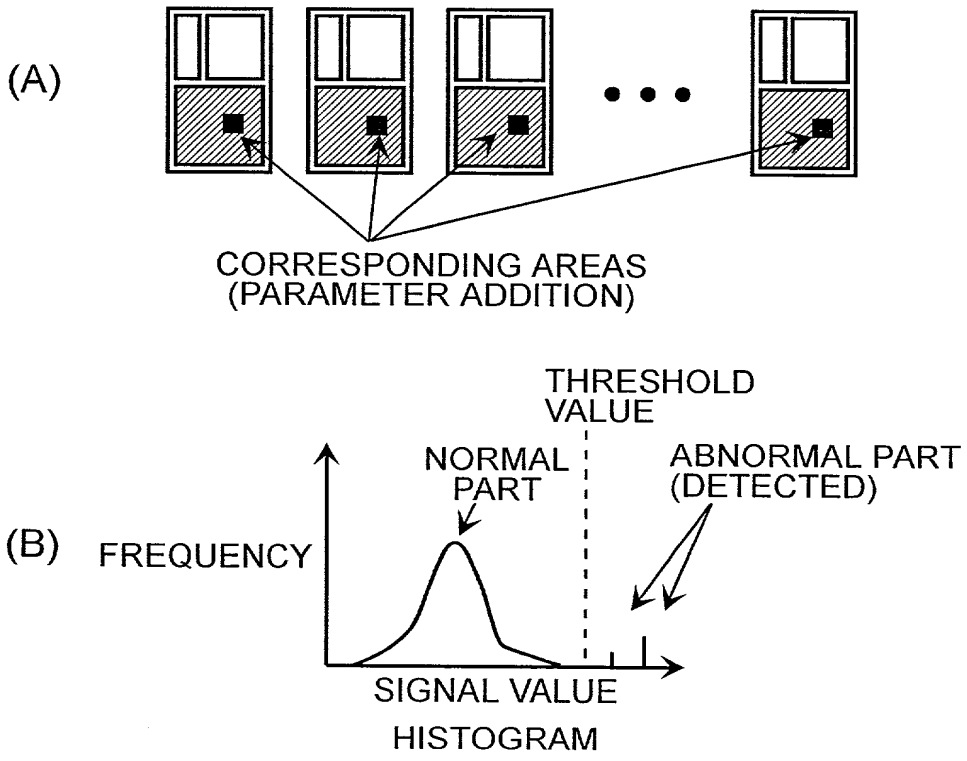
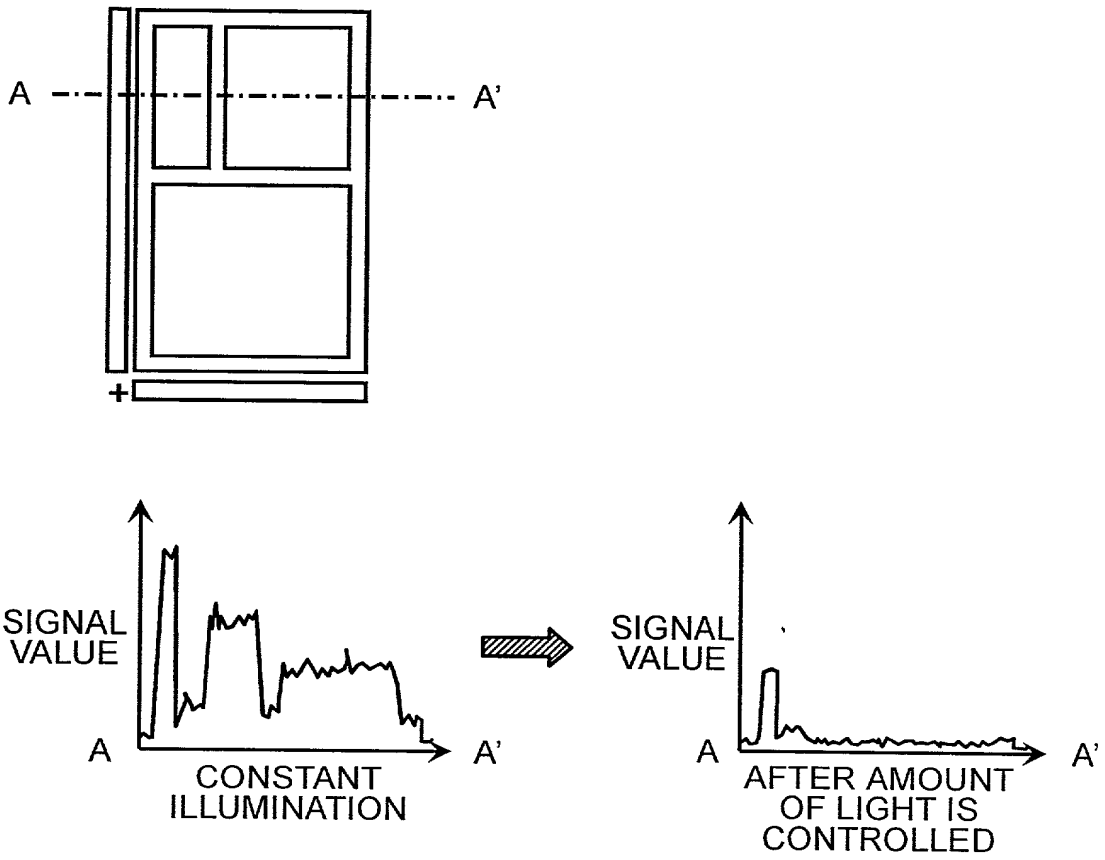

(A)
CORRESPONDING AREAS (PARAMETER ADDITION)
(B)
FREQUENCY
THRESHOLD VALUE
NORMAL PART
ABNORMAL PART (DETECTED)
SIGNAL VALUE
HISTOGRAM

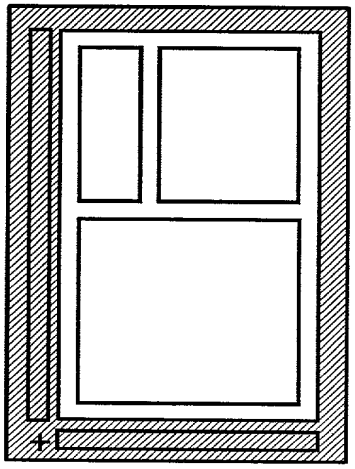
FIG.14



ESTIMATE THE SIGNAL INTENSITY FROM PATTERN PITCH AND CONTROL THE AMOUNT OF LIGHT

SETTING THE AMOUNT OF LIGHT

FIG.15



SETTING AREAS IN WHICH MANY FALSE ALARMS OCCUR

AREAS IN WHICH MANY FALSE ALARMS OCCUR

SCRIBE AREA AROUND MEMORY MAT